

# High Intensity Targeted Screening (HITS)

Chicago, Illinois  
Oct 27 - Nov 11, 2001  
&  
Jun 15 - Jun 30, 2002  
Childhood Lead Poisoning Prevention Program  
Chicago Department of Public Health

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## Objectives of HITS

- Present: Obtain an unbiased prevalence estimate of blood lead levels among children 12 to 72 months of age in selected neighborhoods
- Future: Identify children missed by routine screening

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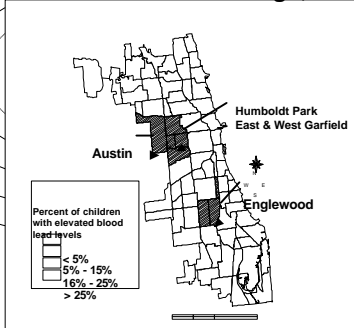
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## Percent of Children with Elevated Blood Lead Levels - Chicago, 1999



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## Components of a visit

- Door-to-door
  - Keep track with the Household Tracking Log
- Informed Consent
- Draw Blood
  - Venous or Cap
  - 2<sup>nd</sup> tube for measles titer (immunization)
- Child questionnaire for each child
- Household questionnaire for each home
- Immunization records documentation
- Incentive provided (\$15 grocery coupon)

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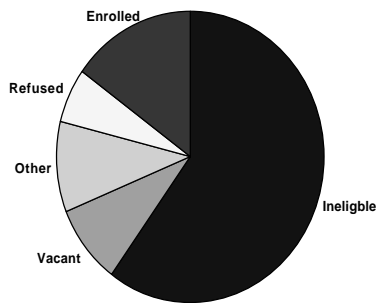
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## Outcomes of Door-to-Door Visits



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## Results

- Majority not previously tested for lead
- HITS 2:
  - 31% had BLLs  $\geq 10 \mu\text{g/dL}$
  - 70% enrolled in Medicaid
  - 98% African-American
- HITS 2:
  - 26% had BLLs  $\geq 10 \mu\text{g/dL}$
  - 62% enrolled in Medicaid
  - 18% uninsured
  - 28% Hispanic

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## HITS Community Areas Lead Poisoning Prevalence

Community Area	Kids 6 and under	Prevalence Rate (1999 est.)	% Elevated (1999)	HITS kids	True Prevalence (2001 & 2002)
Austin	14138	12%	35%	182	26%
Englewood	6838	16%	39%	347	33%
Humboldt Park	10084	9%	26%	358	26%
East & West Garfield Park	6526	15%	36%		

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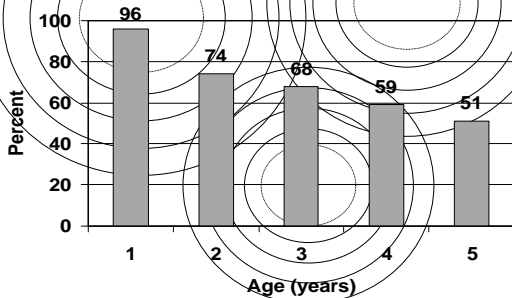
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## Percent of Children Tested for the 1<sup>st</sup> Time by HITS by Age




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## Follow-up of HITS 2001

- Medical case management is being provided for the 64 children with BLLs  $\geq 15$   $\mu\text{g/dL}$
- The 49 homes of these children have been inspected for lead hazards, with appropriate actions following, including referral to the HUD grant program
- Additional 24 homes of children w/ lower levels got low-level treatments and clearance

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## Limitations

- Lots of work
- Fall may not be optimal time for HITS
  - Shorter daylight hours to work
  - Many children recently tested due to School Entry Law
- Quality control of blood samples  
(Many different blood drawers required ongoing training in HITS 2001)
- Refusals
- Transportation

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## Successes

- Identification of new children
- Media exposure
- Attention from legislators
- Better direction of resources
- Coincides with mission of Chicago Department of Public Health
- Model that can be adapted

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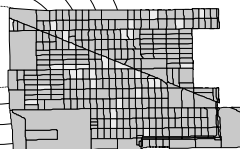
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## Targeted Screening Approach

Using data to identify young children in high risk housing

- GIS
- Medicaid data
- Program data
- Census data



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## Opportunities for Environmental Interventions

- Visual Assessments & Education
- Inspections & Enforcement at 15
- Cleaning (Hepa Vacs) at 5-14
- Hepa cleaning during the initial screening
- Held a lead-safe work practices training & offered free cleaning supplies

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## Humboldt Park

Children 0-6 Years, 2000 Census




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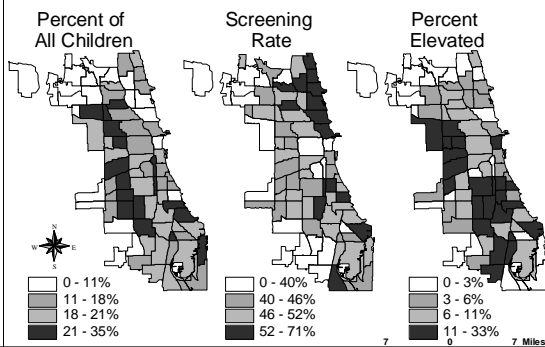
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## Medicaid Eligible Children

Chicago (Aged 0 - 2 Years), 1998




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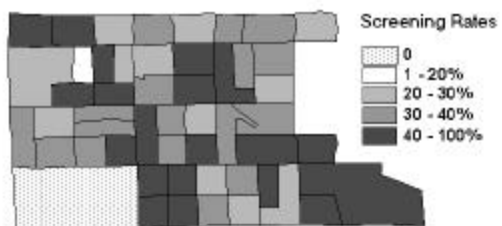
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## 2000 Screening Rates for Humboldt Park, Chicago




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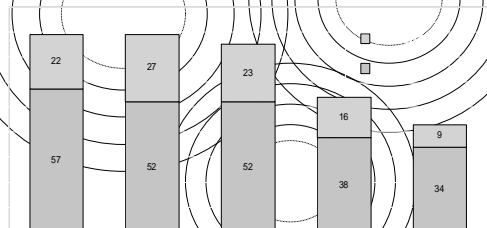
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## Children not tested previous to HITS 2001

More than 60% of the children did not exist in our database previously




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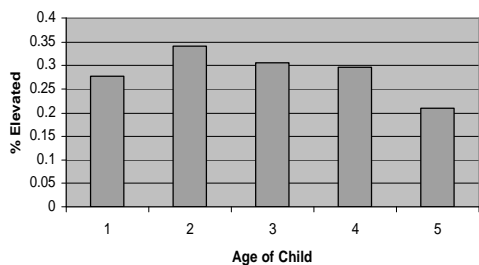
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## Percent of Children Tested with Elevated Blood Lead Levels




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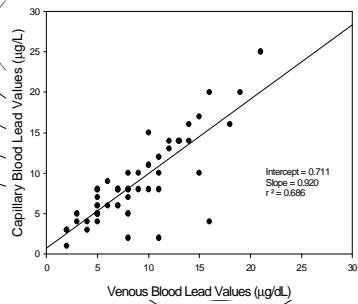
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# Correlation of Test Methods

Capillary vs Venous Blood Lead Values ( $\mu\text{g/L}$ )



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